

is directed principally to showing the error, as we conceive it, of this basis of the court's decision. The Government's brief pointed out that, while the compensation awarded was not based on any taking of property through the flooding of fast land, it was to be observed that portions of the respondent's structure rested below high water mark and indeed on the bed of the navigable St. Croix (Govt. Br. p.20).

The brief of respondent is based largely on the argument that the damages "were the result of a taking of respondent's fast lands which included part of the dam and generating facilities" (Resp. Br. p. 13 *et seq.*). Respondent charges that the Government, in pointing out that portions of the structure lie below high water mark in the St. Croix, has changed its position in this Court. It is asserted (p. 14) that the Government changed its position "only after this appeal was taken but it supports the claim only by asserting two insignificant parts of the dam were located in the St. Croix River, one, the draft tubes and two, a guide wall." It is also charged that "The record also shows clearly that no findings were requested on any issue claimed material now." (p. 8).

Without magnifying the issue, we wish to make it plain that our position with respect to the location of portions of respondent's structure was brought forward in the court below and supported by the same evidence to which we have referred in our principal brief in this Court.

With respect to requested findings, the record in this Court could not show whether the requests were or were not made, since the Court of Claims declined to certify as part of the record the report of the commissioner, the defendant's exceptions and requests, and the defendant's motion for a new trial and for amended and additional findings of fact (see Order of Court settling record, R. I, 33). The record in the Court of Claims shows clearly, however, that the pertinent requests were made at the appropriate times. Upon the filing of the commissioner's report, the Government in its exceptions stated: "The findings likewise fail to describe plaintiff's St. Croix hydroelectric plant at Hudson in its relation to the bed of Lake St. Croix, a navigable interstate waterway of the United States." (Designated Portions of Transcript of Testimony, p. 273.) The Government requested this additional finding (*id.* p. 277): "The west side of the powerhouse proper and the concrete guide wall or tail race flume, which latter extends out into Lake St. Croix for a distance of 34 feet westward, rest upon foundations constructed in the Lake bed to elevations below 663 feet, mean sea level (Shultz, Tr. 20, 44-45; Hooper, 389-391)."¹ Thereafter, upon the entry of findings of fact by the court itself, the Government filed this exception (*id.* p. 293):

¹ The citations to the transcript are now to be found in the printed record at R. II, 38-39, 45-46.

The uncontradicted evidence shows that the powerhouse is located near the confluence of the two rivers, and is designated by plaintiff as the "St. Croix plant" (it being the one in controversy in this suit). It abuts upon the St. Croix River, its west elevation or side being continuous with and forming an integral part of the eastern bank of that river. The evidence further shows that that part of the powerhouse comprising the tail race extends out into the St. Croix River for a distance of 34 feet, the concrete tail race guide walls thereof resting upon foundations constructed in the bed of that river down to elevations below 663 feet mean sea level, that is to say 9 feet below the ordinary high water line of 672 feet as found by the court in Finding 5 (Hooper, Tr. 389-391; drawings B and C appended hereto; see also Deft's. Exhibits 7 and 8).

An additional finding was requested in substantially these terms (*id.* p. 295).

The evidence itself is uncontradicted and indeed is in large part the same evidence upon which respondents rely in maintaining that there has been a flooding of part of the structure. Exhibits 22 and 23, to which respondent makes special reference (Br. pp. 6, 15, 17), show that to whatever extent the St. Croix has been raised in contact with the structure, the contact is with the portion which rests on the bed of the St. Croix itself. It does not avail the respondent to

speak of the draft tube and guide wall as "two insignificant parts of the dam" (p. 14), for it is to these parts that respondent points (Exs. 22 and 23) in maintaining that contact with its dam has been increased by a height of three feet through the raising of the level of the St. Croix. It may also be remarked that in a further sense these are not insignificant, since the testimony shows that "good operation" required the draft tubes to be submerged, even when the level of the St. Croix was unusually low and the head correspondingly great. (R. II, 39.)² If respondent's claim

² While the record thus adequately indicates the necessity of keeping the draft tubes below water level in the lower pool, it may be of interest to note the scientific explanation of this:

The invention of the draft tube about 1840 greatly increased the possibility of adapting the pressure turbine to suit local conditions. This consists in arranging the discharge pipe so that its lower end always discharges below the surface level in the tail race. By this means the turbine may be elevated above tail-race level without loss of head, for since (neglecting the kinetic head in the tube) the pressure in the draft tube at tail-race level is equal to that of the atmosphere, if the diameter is uniform that at the top of the tube will be less than atmospheric by an amount equivalent to the difference of level between turbine and tail race. The available head, measured from head water to the discharge side of the turbine, is thus the same as if the turbine were erected at tail-water level and discharged under atmospheric pressure. (A. H. Gibson, *Hydraulics and Its Applications* (Fourth Edition, 1934), p. 463.) See also article "Turbines" in *Encyclopedia Britannica*, Fourteenth Edition, Volume 22, p. 581.

is based on physical flooding, its claim is thus self-defeating, for the United States may without compensation subject to flooding above high water mark structures which rest below that level in a navigable stream. (*United States v. Chicago, Milwaukee, St. Paul, and Pacific R. R. Co.*, 312 U. S. 592.)

Respectfully submitted.

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